FIG. 1

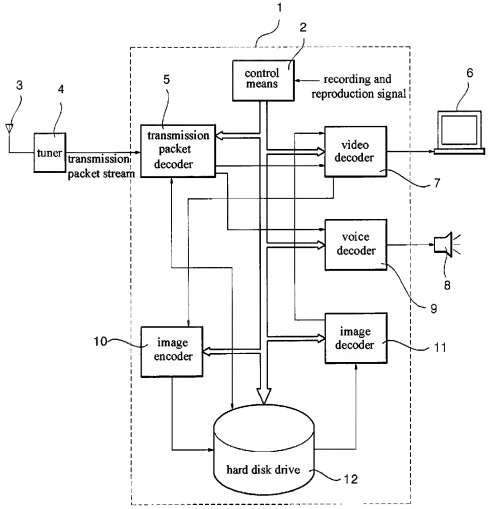

1
2
control means
recording and reproduction signal
6
3
4
5
tuner
transmission packet stream
transmission packet decoder
video decoder
7
voice decoder
8
9
10
image encoder
image decoder
11
hard disk drive
12

FIG. 2

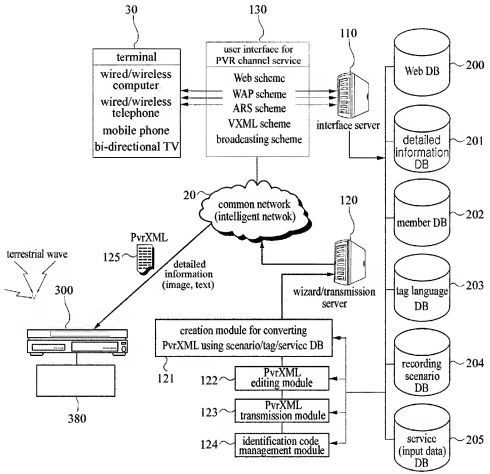

30
terminal
wired/wireless computer
wired/wireless telephone
mobile phone
bi-directional TV
130
user interface for PVR channel service
Web scheme
WAP scheme
ARS scheme
VXML scheme
broadcasting scheme
110
interface server
Web DB
200
detailed information DB
201
member DB
202
tag language DB
203
recording scenario DB
204
service (input data) DB
205
20
common network (intelligent netwok)
120
wizard/transmission server
PvrXML
125
detailed information (image, text)
terrestrial wave
300
380
creation module for converting PvrXML using scenario/tag/service DB
121
122
PvrXML editing module
123
PvrXML transmission module
124
identification code management module

FIG. 3

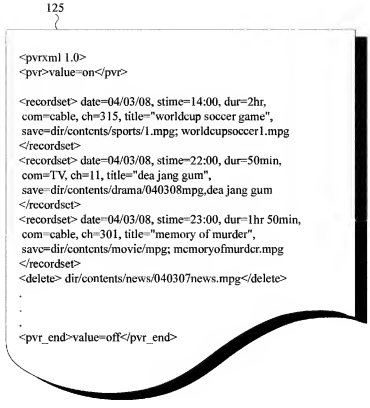

125
<pvrxml 1.0>
<pvr>value=on</pvr>
<recordset> date=04/03/08, stime=14:00, dur=2hr,
com=cable, ch=315, title="worldcup soccer game",
save=dir/contents/sports/1.mpg; worldcupsoccer1.mpg
</recordset>
<recordset> date=04/03/08, stime=22:00, dur=50min,
com=TV, ch=11, title="dea jang gum",
save=dir/contents/drama/040308mpg,dea jang gum
</recordset>
<recordset> date=04/03/08, stime=23:00, dur=1hr 50min,
com=cable, ch=301, title="memory of murder",
save=dir/contents/movie/mpg; memoryofmurder.mpg
</recordset>
<delete> dir/contents/news/040307news.mpg</delete>
.
.
.
<pvr_end>value=off</pvr_end>

FIG. 4

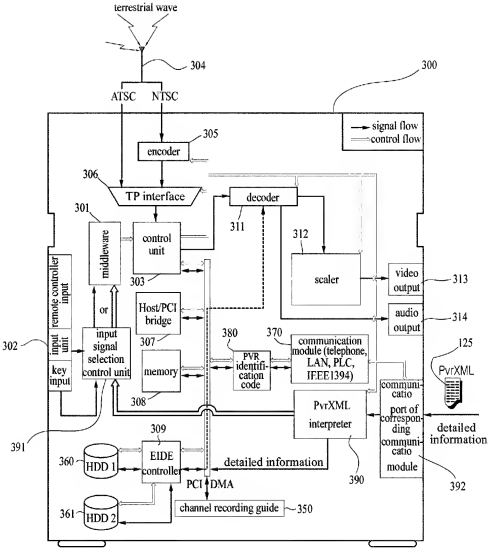

terrestrial wave
304
300
ATSC
NTSC
signal flow
control flow
305
encoder
306
TP interface
decoder
311
312
301
middleware
control unit
303
scaler
video output
313
audio output
314
remote controller input unit
input
or
Host/PCI bridge
307
302
input signal selection control unit
memory
380
370
PVR identification code
communication module (telephone, LAN, PLC, IEEE1394)
125
PvrXML
key input
308
communication port of corresponding communication module
PvrXML interpreter
detailed information
391
309
360
HDD 1
EIDE controller
detailed information
390
392
PCI
DMA
361
HDD 2
channel recording guide
350

FIG. 5

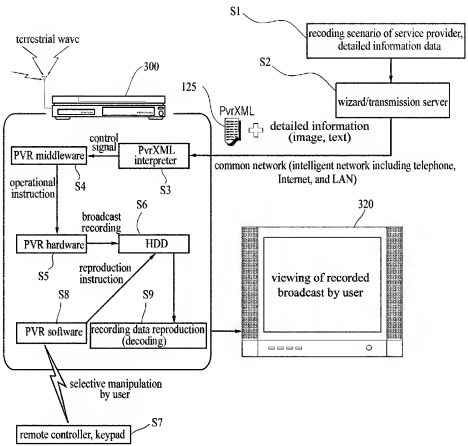

S1
recoding scenario of service provider, detailed information data
terrestrial wave
300
S2
wizard/transmission server
125
PvrXML
detailed information (image, text)
control signal
PVR middleware
PvrXML interpreter
common network (intelligent network including telephone, Internet, and LAN)
operational instruction
S4
S3
S6
broadcast recording
320
PVR hardware
HDD
S5
reproduction instruction
viewing of recorded broadcast by user
S8
S9
PVR software
recording data reproduction (decoding)
selective manipulation by user
remote controller, keypad
S7

FIG. 6

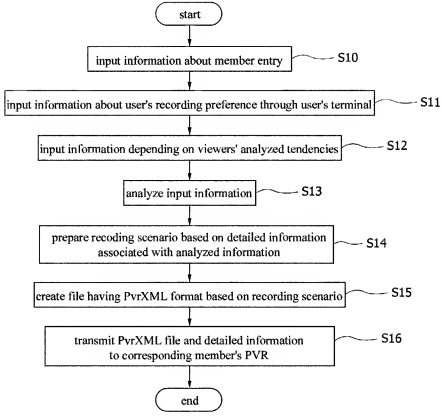
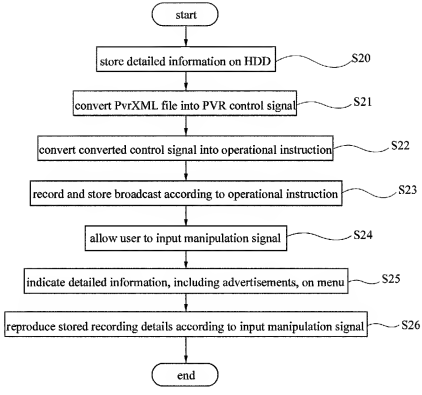

start
input information about member entry
S10
input information about user's recording preference through user's terminal
S11
input information depending on viewers' analyzed tendencies
S12
analyze input information
S13
prepare recoding scenario based on detailed information associated with analyzed information
S14
create file having PvrXML format based on recording scenario
S15
transmit PvrXML file and detailed information to corresponding member's PVR
S16
end

FIG. 7


start
store detailed information on HDD
S20
convert PvrXML file into PVR control signal
S21
convert converted control signal into operational instruction
S22
record and store broadcast according to operational instruction
S23
allow user to input manipulation signal
S24
indicate detailed information, including advertisements, on menu
S25
reproduce stored recording details according to input manipulation signal
S26
end